

## Pattern of Use of Earphone and Music Player Devices among Iranian Adolescents

Hossein Ansari, Asghar Mohammadpoorasl<sup>1</sup>, Fatemeh Rostami<sup>2</sup>, Ahdieh Maleki<sup>3</sup>,  
Mohammad Hassan Sahebiagh<sup>3</sup>, Kourosh Holakouie Naieni<sup>4</sup>

Health Promotion Research Center, Zahedan  
University of Medical Sciences, Zahedan, Iran,

<sup>1</sup>Department of Nutrition and Food Safety, Qazvin  
University of Medical Sciences, Qazvin, Iran,

<sup>2</sup>Baqiyatallah University of Medical Sciences,  
Tehran, Iran, <sup>3</sup>Tabriz Health Services Management  
Research Center, Tabriz University of Medical  
Sciences, Tabriz, Iran, <sup>4</sup>Department of Epidemiology  
and Biostatistics, School of Public Health, Tehran  
University of Medical Sciences, Tehran, Iran

Correspondence to:

Dr. Asghar Mohammadpoorasl,  
Department of Nutrition and Food Safety,  
Qazvin University of Medical Sciences,  
Qazvin, Iran.

E-mail: poorasl@yahoo.com

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### ABSTRACT

**Background:** There is no information about the pattern of use of earphones and music players in Iranian adolescents. The aim of this study was to assess the prevalence and pattern of the use of earphone and music player devices as a main risk factor for hearing loss in adolescents of Tabriz city, northwest of Iran.

**Methods:** In this cross-sectional study in November 2011, 2,359 high school students were randomly selected and were asked to complete a 20-item questionnaire about the pattern of using earphones and music players.

**Results:** The results showed that 44.3% [confidence interval (CI) 95%: 38.3-50.3] of the respondents had a history of hearing problems that was significantly different between males and females (42.2% of males and 47% of females,  $p = 0.02$ ). Notably, 36.8% of the participants stated that they listened to music without any rest or stop. Almost 49.6% (CI 95%: 44.4-54.4) of the students reported listening to 'somewhat loud' (gain setting at 50%) or 'very loud' (gain setting more than 50%) volume level of music. In terms of the kind of earphones, 17.1% of the participants used headphones, 34.8% used earbud-style headphones, 32.3% used supra-aural headphones, and 15.8% of them did not use any type of earphones.

**Conclusions:** Students have risky patterns of using earphones and music-listening devices. Planning educational programs in this domain for adolescents especially in high schools is necessary.

**Keywords:** Adolescents, earphone, hearing loss, Iran, music player.

### INTRODUCTION

Noise-induced hearing loss (NIHL) is a common and preventable disability, and it can be caused by recreational noise and leisure activity such as listening to music player devices.<sup>[1]</sup> NIHL is one of the most important problems of social and public health. For reducing NIHL, policies mostly focus on reducing environmental noise to prevent hearing loss among adults, whereas many studies have shown that NIHL is increasing among children and adolescents.<sup>[2]</sup>